Public Works (1896) Department.

G.O., No. 5034

Dated 12-6-96

[Despatch Abstract.]

Idimisalli Tank, Nellore Dt., Re estimate for Rs 15,500 for improving the —, Sanctioned.

[P.W. 86.
1,000—23-10-96.]

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

No. 503 I., 12TH JUNE 1896.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following paper :—

From Major W. L. C. BADDELEY, R.E., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated 9th April 1896, No. 30 N.L.

With reference to your No. II/4 N.L., dated 30th January 1896, I have the honour to forward herewith, for your approval and sanction of Government, plans and estimates, amounting to Rs. 15,500, for improving the Idimipalli tank in the Nellore division.

2. Copy of Executive Engineer, Nellore Division's No. 451 S.E., dated 19th February 1896, explains that the whole of the Potella river is impounded in the Idimipalli tank.

3. The Executive Engineer was authorised last May to put the works of (1) flush escape, (2) earthwork and (3) sluices in hand in anticipation of sanction to the estimate.

4. The report which accompanies the estimate explains the necessity for the work.

ENCLOSURES.

From the Executive Engineer, Nellore Division, to the Superintending Engineer, II Circle, dated 21st February 1896, No. 451 S.E.

With reference to your No. 579 N.L., dated 10th February 1896, I have the honour to report as follows :—

(1) The whole of the water of the Pottella river may be taken as being impounded in the Idimipalli tank and as having, in times of flood, to be discharged over the escapes provided. A little of the spill passes through a road dam on the Grand Trunk road and does not enter the tank. As the exact discharge of this road dam cannot be ascertained it is safer to allow for the hole flood discharge as entering the tank.

(2) I accept the Chief Engineer's calculations regarding the discharge, but beg to point out that a mistake has crept in. The catchment basin of the upper tanks has to be taken as 34 square miles instead of 20. This will necessitate the length of weir being reduced to 680 feet. I have made the following alterations in the estimate for this weir—(1) laterite rubble in mortar floor 2′ thick has been provided instead of a concrete one 1′ 6″ thick; (2) the retaining wall will be of laterite rubble in mortar instead of cut laterite in mortar. These alterations are found necessary for utilising the stones from the bye-wash which is now not necessary, but which has already been built. Provision is made in the data for the labour of building and removing the stones from the bye-wash.

(3) On account of alterations in the designs, the hydraulic statement and the report had to be altered. I have altered the former and written a new report which I forward herewith.

REPORT to accompany the plans and estimates for improvements to Idimipalli tank, No. 199 of Imperial list of tanks, II Circle.

Amount of estimate	RS.	15,500
Ayacut	ACS.	1,047
Assessment	RS.	4,713

This tank is the terminal tank of the Idimipalli group with an ayacut of nearly 1,000 acres, of which 375 acres are shown in the irrigation register prepared in 1880. The tank has not been repaired for the last ten years. A greater portion of the bund has been washed away, and it is in a good many places below F.T.L. Consequently we cannot store water enough for these 375 acres even. The irrigation has fallen down to 180 acres. There is a good deal of waste land which can be brought under cultivation, if there is sufficient water. The F.T.L. has been kept at its original level, *i.e.*, the crest of the old weir. The capacity of the tank at this level is 80,000,000 cubic feet. Supposing the tank to be filled thrice during the year, it can supply water for about 1,200 acres of peshanam crop.

2. The tank has besides the supply from its own catchment basin, a good supply from the Pottella river, whose drainage area is about 80 square miles and which will supply in years of average rainfall water enough to fill this tank.

3. The tank has one surplus weir 150 feet long and a calingulah 100 feet long. The weir is in good order and requires slight repairs. The calingulah is an old work and is in such a bad state that it is not worth while repairing it. Both these put together are not enough for discharging the drainage. It is proposed to retain the old weir and to demolish the calingulah and put a bund across it. A new weir, 680 feet long (*vide* calculations on hydraulic statement sheet) will be built at cross section No. 42. The floor and the retaining wall of this weir will be of laterite rubble in mortar in order that we may utilise the revetment stones which were used for the bye-wash which had been built before the receipt of orders from the Chief Engineer. Provision is made in the data for the cost of the original building and the removal of the stones.

4. There were four sluices to this tank. One of these was washed away during the floods of November 1893. Of the other three, one is in the old calingulah which is to be demolished. The two others are also in bad order. Four new sluices are provided. To prevent the wave wash it is proposed to revet the front slope with vidavally sods which are procurable in a large quantity in the tank bed. Experience at Marrepalli madugu has shown that vidavally sods, if well grown, form a very good protection to the bund. The portion which is directly exposed to the Pottella floods is to be revetted with stone.

5. Taking 1,000 acres as the possible ayacut, the revenue from the tank would be Rs. 5,000. The present revenue is Rs. 850. The net increase, therefore, is Rs. 4,150 per annum. Deducting from this a sum of Rs. 1,490 for the upkeep of the tank, the net revenue would be Rs. 2,660 or about 14 per cent. on the outlay.

	Rs.
Present estimate	15,520
Establishment, tools and plant at 23 per cent.	3,570
Total ...	19,090
or	19,000
Interest on	19,000 = 2,660
∴	$100 = \frac{2660}{109} = 14$

Of the upper tanks, the Kommalapudi, Budamaguntah and Kommalapudi Ana tank are not provided with adequate surplus weirs, they are being investigated; but as they discharge into the Pottella and as a ground escape has been provided for the Pottella floods, there will be no danger to this tank even if this should breach.

(Signed) R. A. SRINIVASA AIYANGAR,
Ex. Engineer, Nellore Division.

19th February 1896.

No. 117 I.

Note by the Chief Engineer for Irrigation.

In Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), No. 447, dated 30th January 1895, it was brought to the notice of the Chief Engineer for Irrigation that, owing to the bad condition of the Idimipalli tank, the average area irrigated by the tank had fallen to about one-fifth of the full ayacut of 1,524 acres.

2. These Proceedings were forwarded to the Superintending Engineer, II Circle, with instructions to put in hand the complete repairs of the tank as soon as possible.

3. An estimate was prepared amounting to Rs. 18,300 and was received on the 22nd August 1895 in this office. It was returned to the Superintending Engineer with remarks on the 23rd August 1895, resubmitted on the 25th November 1895, and returned again with further remarks on the 30th January 1896.

4. It was my intention to have inspected the work in January last with the late Executive Engineer Mr. C. H. D. Marjoribanks, but, owing to the untimely decease of that officer, the arrangement fell through. The estimate, revised finally in accordance with instructions from this office, was received on the 11th April last. At the time the Superintending Engineer was ordered to take measures for the repairs of the tank it was not anticipated that the nature of the work would throw it out of the scope of his powers of sanction. The work being of an emergent nature, however, and the expected increase of revenue being over Rs. 4,000, it would have been impolitic to have stopped the work especially after a contract for it had already been entered into by the Superintending Engineer in April 1895, and the action of this office was confined to urging the Superintending Engineer to expedite the submission of the estimates. Had it not been that the technical details demanded considerable and extended investigation, it is most probable that the estimate would have received the sanction of Government on the first occasion of its submittal.

5. The expenditure down to March last amounts to Rs. 10,002 and the tank should now, it is hoped, be in a condition to irrigate its full ayacut, thus yielding a percentage of about 25 per cent. on the outlay.

(Signed) R. R. E. DRAKE-BROCKMAN, Colonel, R.E.,
Chief Engineer for Irrigation.

4th June 1896.

ORDER—No. 503 I., dated 12th June 1896.

The following estimate is sanctioned:—

Irrigation.
43. Minor Works and Navigation.
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.
Original Works.
Improving Idimipalli tank No. 199 of the list of works in the Nellore district appended to G.O. No. 407 I., dated 6th July 1887.

	Rs.
Estimate	15,500

2. This sanction is registered as No. 59 I. of 1896–97.

(True Extract.)

Under Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
„ Superintending Engineer, II Circle, with twenty-one enclosures.
„ Examiner, Public Works Accounts.
„ Revenue Department.

Exd. C. M. Thumbuswamy.
Spare Copies

IRRIGATION.
ACCOUNT.

Govt. of {1896} Madras.

PUBLIC WORKS.

Dated June, 12th.

Recd. *Encl.*

G.O. No. 503 I., 12th June 1896.

JUNE.

Idimipalli Tank, Nellore District

The estimate of Rs. 15,500 for improving the —, sanctioned.

A No. 503 I. dy 12-June 1896.

Pub. Works Department,
Irrigation Branch.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Pub. Works Report and Ptn letter

Under date the

Read the following

From the Suptg: Engr: 2nd Circle (H.E. No. 30 N.L. dated 9th April 1896)
Note by the Chief Engr: for Irrign (H.E. No. 117 I dated 4th June 1896.

No 117 I dy 4 June 96

In Proceedings of the Board of Revenue (Revenue Settlement, Land - Records and Agriculture) No. 447 dated 30th January 1895, it was brought to the notice of the Chief Engineer for Irrigation that owing to the bad condition of the Idimipalli tank the - average area irrigated by the tank had fallen to about one fifth of the full ayacut of 1524 acres.

2. These Proceedings were forwarded to the Superintending Engineer 2nd Circle with instructions to put in-hand the complete repairs of the tank as soon as possible.

3. An estimate was prepared amounting to Rs. 18,300 and was received - on the 22nd August 1895 in this office. It was returned to the Superintending Engineer with remarks on the 23rd - August 1895, resubmitted on the 25th November 1895, and returned again with further remarks on the 30th January 1896.

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5. The expenditure down to March - last amounts to Rs. 10,002 and the - tank should now, it is hoped, be in a condition to irrigate its full ayacut, thus yielding a

a percentage of about 25 per cent - on the outlay.

Order thereon:-

The following estimate is sanctioned:-

Irrigation.

43 Minor Works and Navigation.

Minor Works for which neither Capital nor Revenue Accounts are kept, P.W. Department.

Original Works.

Improving Idimipalli tank No. 199 of the list of works in the Nellore -- District appended to G.O. No. 407 I - dated 6th July 1887, estimate Rs. 15500.

2. This sanction is registered as No. 59 I of 1896-97.

4/6/96

DESPATCHED
2- JUL 96

To,

The Chief Engr: for Irrign:-
" Suptg:Engr: 2nd Circle. with 21 enclos.
" Examiner, P.W. Accounts.
" Revenue Department.

P. W. CURRENT No. 5277

Estimate for improving Idimi-
palli tank: Nellore Dt.

Recd: 11.6.96

Encls 2+ (8 Plans)

D. P. W. Second Circle

Improvements to Idimapalli Tank.

Amount of Estimate Rs 18300 15500

No 199 of Imperial list of Tanks.

Ayacut acres 1047 Assessment Rs 4713

Report.

To accompany the Plans and estimates for

This tank is the terminal tank of the Idemepalli group with an ayacut of nearly 1000 acres of which 375 acres are shown in the irrigation register prepared in 1880. The tank has not been repaired for the last 10 years. A greater portion of the bund has been washed away and it is in a good many places below F. T. L. Consequently we cannot store water enough for these 375 acres even. The irrigation has fallen down to 180 acres. There is a good deal of waste land which can be brought under cultivation, if there is sufficient water. The F. T. L. has been kept at its original level (i.e) the crest of the old weir. The capacity of the tank at this level is 80 000000 cft. Supposing the tank to be filled thrice during the year it can supply water for about 1200 acres of Peshanam crop.

2. The tank has besides the supply from its own

catchment basin, a good supply from the Pottella River, whose drainage area is about 80 square miles and which will supply in years of average rainfall water enough to fill this Tank.

3. The tank has one Surplus weir 150ft long and a Caliyula 100ft long. The weir is in good order and requires slight repairs. The Caliyula bund is an old work and is in such a bad state that it is not worthwhile repairing it. Both these put together are not enough for discharging the drainage. It is proposed to retain the old weir and to demolish the Caliyula and put a bund across it. A new weir 680ft long (vide calculations on hydraulic statement sheet) will be built at cross section No 42. The floor and the retaining wall of this weir will be of Laterite rubble in mortar in order that we may utilise the revetment stones which were used for the bye wash which had been built before the receipt of orders from the Chief Engineer. Provision is made in the data for the cost of the original building and the removal of the stones.

4. There were four sluices to this tank. One of these was washed away during the floods of November 1893. Of the other three, one is in the old Caliyula bund which is to be demolished. The two others are also in bad order. Four new sluices are provided. To prevent the same wash it is proposed to revet the front slope with sidewally sods which are procurable in a large quantity in the tank bed. Experience at Marrapalli Anicut has shown that sidewally sods, if well grown, form a very good protection to the bund. The portion which is directly exposed to the Pottella floods is to be revetted with stones.

5. Taking 1000 acres as the possible Ayacut, the revenue from the tank would be Rs 5000. The present revenue is 850 Rs. The net increase, therefore, is 4150 Rs per annum. Deducting from this a sum of Rs 1490 for the upkeep of the tank, the net revenue would be Rs 2660 or about 14 per cent on the outlay.

	Rs
Present Estimate	15520
Establishment Tools and Plant at 23 per cent.	3570
Total	19090
or	19000 Rs

Interest on 19000 = 2660

$\therefore \frac{\quad}{100} = \frac{2660}{190} = 14$

Of the upper tanks, the Kommalapudi Budamagunta and Kommalapudi Ana Tank are not provided with adequate surplus weirs they are being investigated. But as they discharge into the Pottella and as a ground escape has been provided for the Pottella floods, there will be no danger to this tank, even if this

this should be made.

P. A. Srinivasan Esquire
19-2-96
Executive Engineer
Nellore Division

Copies
R.
19/2/96.

Camp
Ub
19-2-96

SUPG. ENGINEER
No. 655 M
24 FEB. 96
P. W. D.
SECOND CIRCLE

CHIEF ENGINEER
FOR IRRIGATION.
11 APR. 96
No. 29 N.L

Idempalli Tank ——

Report & accompanying
plan and Estimate for
improvements to ——

PWD 3
527/8/96

Letter from the Exec. Engineer Nellore Dn.
to the Supg Engineer, 2nd Circle, dt 21st Feb 96
No. 451 S.E.

5 & P

With reference to your No. 579 N.L.
dt 10.2.96 I have the honour to report
as follows:—

1. The whole of the water of the Potella
river may be taken as being
impounded in the Idempalli tank
and as having in times of flood,
to be discharged over the escapes
provided. A little of the spill
passes through a road dam
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and does not enter the tank.
As the exact discharge of this
road dam cannot be ascertained
it is safer to allow for the whole
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2. I accept the Chief Engineer's
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but beg to point out that a mistake
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of the upper tanks has to be taken
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being increased to 680 ft. I have made
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mortar

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3. On account of alterations in the designs the hydraulic statement and the report had to be altered. I have altered the former and written a new report which I forward herewith.

—

/True Copy/

Illegible Manager,

Illegible Engrs Office II Circle.

CHIEF ENGINEER FOR IRRIGATION. 11 APR. 96 No

Superintending Engineer's Office,

No. 30 NL

II CIRCLE,

Dated 9 April 1896.

From,

Major W.R.C. Baddeley ~~Esquire~~ R.E.,
Superintending Engineer,
II Circle.

To,

The Chief Engineer,
For Irrigation
Madras.

Encls
6 Plans
2 Tracings
6 Abstract Estimates with details for four
1 Data
1 General Abstract
1 Hy: Statement
1 Report
1 Copy of Ex. No 451 SE 21-2-96

19

+ Sent separately

Sir,

With reference to your No. II/4 NL dy 30th January 1896 I have the honour to forward herewith for your approval and sanction of Government plans & estimates amounting to Rs 15,500 for improving the Idumpalli tank in the Nellore Dist.

2. Copy of Exe: Engineer, Nellore Dis's No 451 S.E. dy 19.2.96 explains that the whole of the Potella pinnow is impounded in the Idumpalli tank.

3. The Exe: Engineer was authorized last May to put the works of (1) Flush escape (2) Earthwork and (3) Sluices in hand in anticipation of sanction to the estimate.

4. The report which accompanies the estimate explains the necessity for the work. I have the honour to

Your obedient servant
W.R. Baddeley Major
Superintending Engineer
II Circle

No. 1

From

The Supg Engineer

Second Circle

To The Chief Engineer

For Irrigation

Dated 9th April 1896.

Encl 19

No 30 M

I dispatch Tank in

Nellore Dt —

Forwards for approval

& sanction an Estimate

of Rs. 15.500 for improving

the —

Out.
527/96 1-675-9-22-5-96

From,

The Superintending Engineer,

II Circle.

To,

The

CHIEF ENGINEER
FOR IRRIGATION.
11 APR. 96
No 29 M

Dated

Received } 18 .

Enclosures.

NO.

SUBJECT.